

REMARKS

The Official Action of June 27, 2003, and the prior art relied upon therein have been carefully reviewed. The claims in the application are now claims 1 and 4-25, including non-elected and presently withdrawn claims 10-23, and applicant's claims define patentable subject matter and therefore should be allowed. Accordingly, the applicants respectfully request favorable reconsideration and allowance.

Acknowledgement by the PTO of the receipt of applicant's papers filed under §119 is noted.

The restriction requirement has been maintained, at least for the present time. The Examiner indicates that a rejoinder will be considered at a later date. Applicants understand, consistent with the law and the regulations, that if a generic claim is found to be allowable, then the non-elected claims which fall within the allowable genus should be rejoined and such claims allowed.

Applicants acknowledge receipt of the Examiner-initialed copies of the IDS forms SB/08A, as well as the

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Examiner's citation of two new references N (Sana et al. WO '468) and U (Akita et al).

As suggested by the Examiner, reference to "Sepharese" on page 31 of applicant's specification has been amended to make more clear that this is a trademark.

Claim 1 has been rejected under §101 as being directed to a product of nature. The Examiner's helpful suggestion has been adopted. Withdrawal of the rejection is in order and is respectfully requested.

Claims 1-9 and 24-26 have been rejected under the second paragraph of §112. This rejection is respectfully traversed.

Claims 2, 3 and 26 have been deleted without prejudice, i.e. without dedication, disclaimer, abandonment, waiver, forfeiture, renunciation, concession or estoppel. The subject matter of those claims is fully encompassed by claim 1.

Claim 24 has been cosmetically amended in a non-narrowing way. The scope of claim 24 has not been reduced, or indeed changed in any way by this amendment.

While applicants most strenuously traverse the rejection of claim 5 because the criticism of claim 5 has nothing to do with indefiniteness in view of the generic nature of claim 1, but instead has to do with the restriction requirement, applicants have nevertheless amended claim 5 at this stage to remove reference to SEQ ID NO:2 without prejudice to its reinsertion into either claim 5 or as a separate claim. In any event, the subject matter in question is still encompassed by claim 1.

As regards the rejection of claim 1, the structure of claim 1 has been changed considerably, and the criticized language is no longer present.

In spite of the amendments presented above, applicants believe the claims as originally drafted, considered in light of applicant's specification (fully consistent with the law), would not have been confusing to those skilled in the art, and therefore the claims in their original form are fully in accordance with §112. At worst, the claims in their previous form might be considered objectionable, but **only** as to form.

Accordingly, the amendments made above are in general of a formal nature only, i.e. made to place the claims in better form consistent with the Examiner's understanding of

what is necessary or desirable under U.S. practice. Thus, the amendments for the most part are not "narrowing" amendments. The meaning of the claims remains the same.

Applicants respectfully request withdrawal of the rejection.

Claims 1-9 and 24-26 have been rejected under §102 as anticipated by Sana et al WO 97/44468 (Sana). This rejection is respectfully traversed.

The isolated antibody of claim 1 is an antibody specific to an interleukin 18 precursor, and has a higher immunoreactivity to interleukin 18 precursor than to mature interleukin 18 by at least 10 times when determined on an enzyme immunoassay. Support for the recitation will be found in the specification at pages 32-35, Example 2, and in particular, from page 34, line 6 to page 35, line 9, where it is described that "each antibody exhibited an immunoreactivity against human IL-18 only at about 10% to about 2% or less of that against IL-18 precursor."

It should be emphasized that the immunoreactivity of the present antibody to interleukin 18 precursor (comprising an amino acid sequence of SEQ ID NO:1) is at least 10 times

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higher than to mature interleukin 18 (having an amino acid sequence of SEQ ID NO:3).

Contrary to the claimed subject matter, the antibody disclosed in Sana is an antibody specific to "IL-lr". It is unknown from the disclosure of Sana whether the antibody specific to "IL-lr" of Sana has a higher immunoreactivity to interleukin 18 precursor than to mature interleukin 18 by at least 10 times when determined on an enzyme immunoassay. It is unknown from the disclosure of Sana which part of SEQ ID NO:2 in Sana is recognized by the antibody of Sana. The antibody disclosed in Sana may have a higher immunoreactivity to mature interleukin 18 than the precursor. In view of this, it is unreasonable to conclude that the antibody of Sana is the claimed antibody.

To the extent that the rejection might be based on some assumed inherency, applicants respectfully point out that inherency must be reasonably certain, and cannot be based on speculation, noting *In re Brink*, 164 USPQ 247, 249; *Ex parte Cyba*, 155 USPQ 756, 757 (1967); and *In re Oelrich*, 212 USPQ 323, 326 (1981). There is clearly no reason to assume that the antibody disclosed in Sana has a higher immunoreactivity to interleukin 18 precursor than to mature interleukin 18 by

at least 10 times, and therefore inherency is neither inevitable nor reasonably certain.

Applicants respectfully request withdrawal of the rejection.

Claims 1-6 and 24-26 have been rejected under §102 as anticipated by Akita et al (Akita). This rejection is respectfully traversed.

The Examiner states that Fig. 6 of Akita discloses an antibody which binds to pro h IL-18. However, it should be noted that the antibody disclosed in Fig. 6 of Akita is the antibody "anti-hIL-18 mAb", which is prepared using mature IL-18 as an antigen. In other words, the antibody disclosed in Fig. 6 binds to both mature IL-18 and pro hIL-18 at the same level of intensity. In fact, the density of the bands for mature IL-18 and pro hIL-18 shown in Fig. 6 are almost the same.

Contrary to this, the claimed antibody has a higher immunoreactivity to interleukin 18 precursor than to mature interleukin 18 by at least 10 times. It is therefore absolutely certain that the claimed antibody is distinct from the antibody as disclosed in Akita.

Again, it should be clear that Akita, like Sana, does not anticipate any of applicants' claims. Withdrawal of the rejection is in order and is respectfully requested.

Claims 1 and 9 have been rejected as obvious under §103 from Akita. This rejection is respectfully traversed<sup>1</sup>.

Akita is deficient for the reasons pointed out above in reply to the rejection based on §102. There is nothing in Akita which would have caused the person of ordinary skill in the art to make any modifications in Akita which would lead to the subject matter of claim 1, let alone claim 9 which fully incorporates the subject matter of claim 1.

Moreover, Akita teaches the person skilled in the art nothing about any industrial usefulness of any antibody, let alone applicant's antibody. Accordingly, Akita provides no motive or incentive for assembling an immunoassay kit.

The antibody specific to interleukin 18 precursor of the present invention has great industrial usefulness as a method of distinguishing interleukin 18 precursor from mature

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<sup>1</sup> The rejection of claim 1 under §103 based on Akita is inconsistent with rejection of claim 1 under §102 based on Akita. It is clearly impossible for a claim to be both anticipated by a reference and obvious from that same reference. If the subject matter of the claim is anticipated by the reference, then obviousness is irrelevant. If an obviousness rejection is correct, then the subject matter of that claim could not have been anticipated by the citation.

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one, as a method of separating said precursor from mature one,  
and as a method of specifically neutralizing said precursor.

Withdrawal of the rejection is in order and is  
respectfully requested.

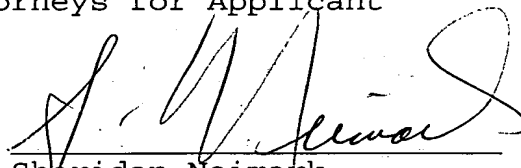
The prior art documents of record and not relied  
upon have been noted, along with the implication that such  
documents are deemed by the PTO to be insufficiently pertinent  
to warrant their application against any of applicants'  
claims.

Applicant respectfully requests favorable  
reconsideration and allowance.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C.  
Attorneys for Applicant

By



Sheridan Neimark  
Registration No. 20,520

SN:ma  
Telephone No.: (202) 628-5197  
Facsimile No.: (202) 737-3528  
G:\BN\S\SUMA\Kayano 1\PTO\Amendment-A.doc